

XI.—ON THE PARASITIC HABITS OF THE PIED CRESTED CUCKOO [*CLAMATOR JACOBINUS* (BODD.)].

Three weeks ago I returned from leave to find many young Pied Crested Cuckoos about the station. Now both Mr. Stuart-Baker in the *Fauna* and Mr. Hugh Whistler in his popular *Hand-book of Indian Birds* state that the young *Clamator* has that unpleasant cuckoo habit of pushing the other inmates or eggs out of the nest. In fact, Mr. Stuart-Baker enlarges on the habit by saying that, although at times many eggs may be found in the one nest, obviously the products of more than one female cuckoo, the strongest and first-hatched youngster alone survives.

Hume and Oates (*Nests and Eggs of Indian Birds*, 2nd Edition, page 388) only go so far as to say that 'as a rule' the young cuckoo is the only bird the foster-parents raise, and, on the same page, quote R. M. Adam as follows:—'On the 13th August I observed in a garden in Agra two young birds of this species—being fed by an *Argya malcolmi*. There was also a young *Argya malcolmi* with the party.'

On August 23rd, I saw a Jungle Babbler feeding two young *Clamator* seated close together on a buttress root of a pipal tree close to the door of my office. The babbler first fed one, flew up into the tree, returned almost immediately and fed the other one. It then flew off followed by both young cuckoos.

Two days afterwards I found we had a pair of young Pied Crested Cuckoos in our own garden, obviously just out of the nest. These were moving about together with a crowd of nine (at least) babblers, and are still to be seen together in the compound.

Now are these really cases of two young cuckoos being brought up in the same nest? If so, it would seem that this species is not so black as it is painted. On the other hand I have seen four members of a gang of babblers feed the young babblers in one nest, so it is faintly possible that these young cuckoos actually came from different nests belonging to members of one gang. I wonder if any other members of the Society have anything to say on this subject?

BAREILLY,

R. S. P. BATES.

September 6, 1937.

XII.—EGG-LAYING OF THE KHASIA HILLS CUCKOO (*C. C. BAKERI*) IN THE NEST OF THE BURMESE STONE CHAT (*SAXICOLA CAPRATA BURMANICA*).

(May 1937).

Yesterday, May 19, 1937, I went for a walk with my wife and children at about 5 p.m. at Taunggyi, S. Shan States. Elevation about 5,000 feet. On our return we passed a ploughed field just outside my north field and some two hundred yards from my cottage. It was then about twenty minutes past six in the evening and the

sun low. My dogs chased a bird off the plough, and then I noticed that it was a cuckoo. I stood there pondering when the cuckoo returned and perched on the bamboo rails. Two chats were after her, and so I suspected that they had a nest there, and that the cuckoo was going to lay. She then flew off with the chats after her—out of sight. We sat down to wait, and I got my field glasses ready. Back came the cuckoo and she flew low over the centre of the field, almost settling at a place some sixty yards in front of us. She then carried on to perch on the rails quite close to us. Then she flew back over the same area and carried on out of sight.

In a couple of minutes' time she came again with the chats after her and dipping low in flight she settled at about the place I suspected the chat's nest to be. I got my glasses on her, and though the light was failing a little, I could see her very plainly. She had the appearance of a laying cuckoo, being a female with her throat feathers puffed out and her crown feathers raised from time to time. She began to search for the nest, hopping about in an ungainly fashion from clod to clod stretching her neck up looking everywhere. The chats were now mobbing her furiously, causing her to be continually ducking to avoid their onslaughts. As she did this she opened her beak at them and made faces. She did not appear to know exactly where the nest was and began a systematic search for it in an area of about five yards by three. The clods in the field were very large and lumpy with all manner of holes and cavities to conceal a chat's nest in, so that she disappeared from sight from time to time as she hopped into the depressions. Backwards and forwards she went in a very persistent manner, mobbed the whole time. I should have perhaps driven her off and quickly erected a hide there, but it was getting so late and I did not know exactly where the chat's nest was myself. I decided to risk it and continued to watch her with the glasses in the hopes that she would be in sight when she found the nest. With luck I should then be able to see her lay.

She was, I think, *a full ten minutes searching* for the nest. It seemed to me a very long time. Her persistence astonished me. She really did not seem to know where it was as she frequently went to look into holes only to come out disappointed again. At last she dipped out of sight from me and a flutter of her wing tips suggested that she had found the nest and was in the act of laying. She was there just out of my sight for about six seconds—and then away she sped in a great hurry.

She had undoubtedly laid!

When she was about a hundred yards' distance she gave two or three times her bubble note.

We climbed the fence and walked up to the place, and there we found a very well concealed chat's nest of the inaccessible type. The exact situation of it was obvious to me from the cuckoo's feathers—six or seven of which were scattered about the nest entrance—mostly over it. As it was all soft earth thereabouts from recent rain her feathers must have been pecked out by the chats—both of which attacked her furiously at the time of laying.

By stooping down with my head a foot above ground-level I could just make out that the nest contained two eggs—the cuckoo's and one chat's egg. From the outside to the edge of the nest would be about three or four inches—that will be shown in the photograph. It was not a nest that I could get my hand into—although my hand is exceptionally small. By using just the tips of my forefinger and middle finger I was just able to get the cuckoo's egg out—and then after it, the chat's. One at a time and with difficulty. The cuckoo's egg was warm and quite dry—with that lovely mat bloom on it of an egg just laid. The chat's egg was whole and uninjured.

We went home with the cuckoo's egg, intending to photograph the nest next day.

This incident confirms in every respect my observations of last year. The actual egg-laying took about three seconds, if we allow three seconds for the cuckoo to put her head into the chat's nest to take out a chat's egg.

There were the usual preliminary flights to the vicinity of the nest to get her ready for her laying. The only thing that astonished me a little was that she really did not, on this occasion, seem certain of the exact situation of the nest but had to hunt diligently for it—for about ten minutes, and this proves that a cuckoo is able to retain her egg for ten minutes.

The laying took place at six forty—the sun just about to dip behind the hills.

A photo with measurements of the nest concludes my account of this incident.

T. R. LIVESEY.

May 20, 1937.

XIII.—CUCKOO PROBLEMS.

In regard to my paper 'Cuckoo Problems' published in Vol. xxxviii, No. 4 of 25th August 1936, an explanation is called for. The term I used to express my theory of the evolution of parasitism in the Cuckoos and the final adaptation of their eggs was 'Desire'. That was perhaps an unfortunate term to use, as it suggests a sudden and independent volition on the part of the cuckoo amounting to almost conscious reasoning. Many people have given it this meaning, and so completely misread me, in spite of my having fully explained that my 'desire' was an *inherited* desire.

I must therefore explain that 'desire', has to be read as an 'inherited urge to parasitism' in most places where it occurs.

TAUNGGYI,
SOUTHERN SHAN STATES,
BURMA.

T. R. LIVESEY.

October 13, 1937.